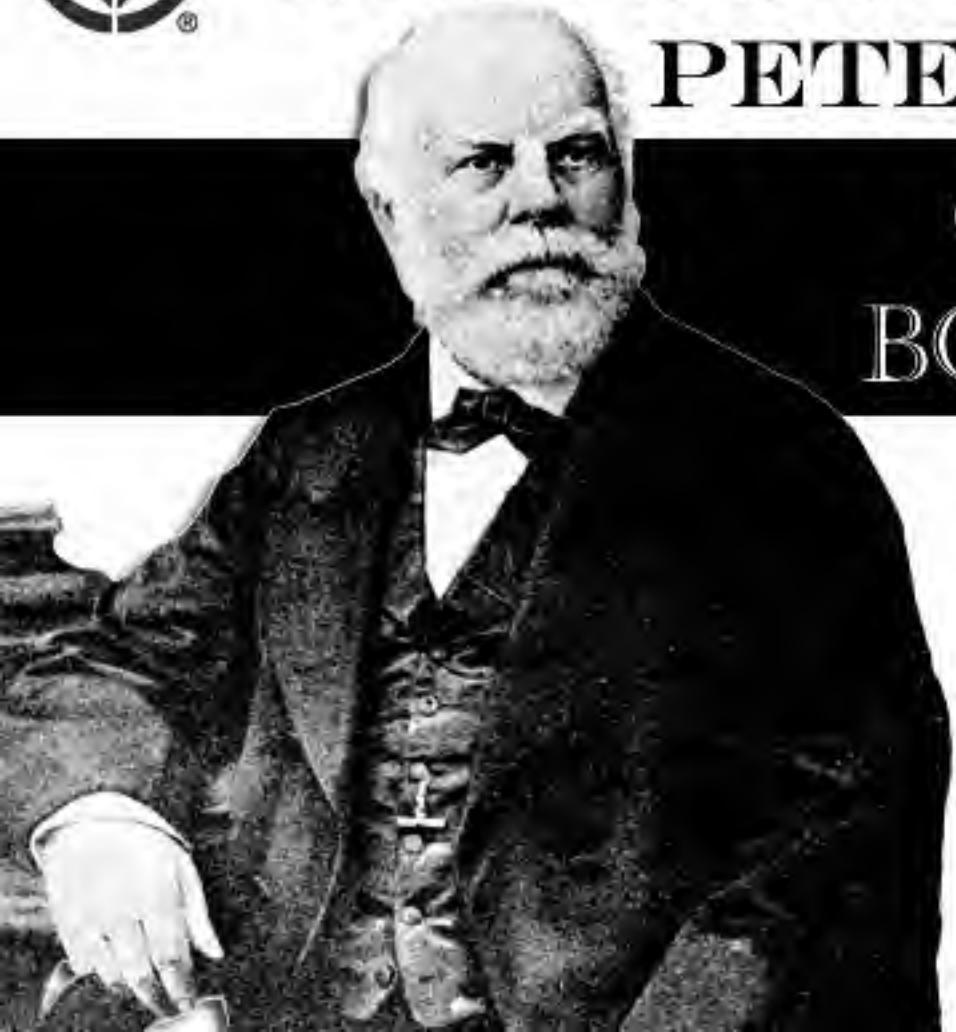




MISSOURI BOTANICAL GARDEN

PETER H. RAVEN LIBRARY



GEORGE ENGELMANN BOTANICAL NOTEBOOKS

Pagination Note:
Since many of the items lack a specific page number, the page number displayed online refers to the sequentially created number each item was given upon cataloging the materials.

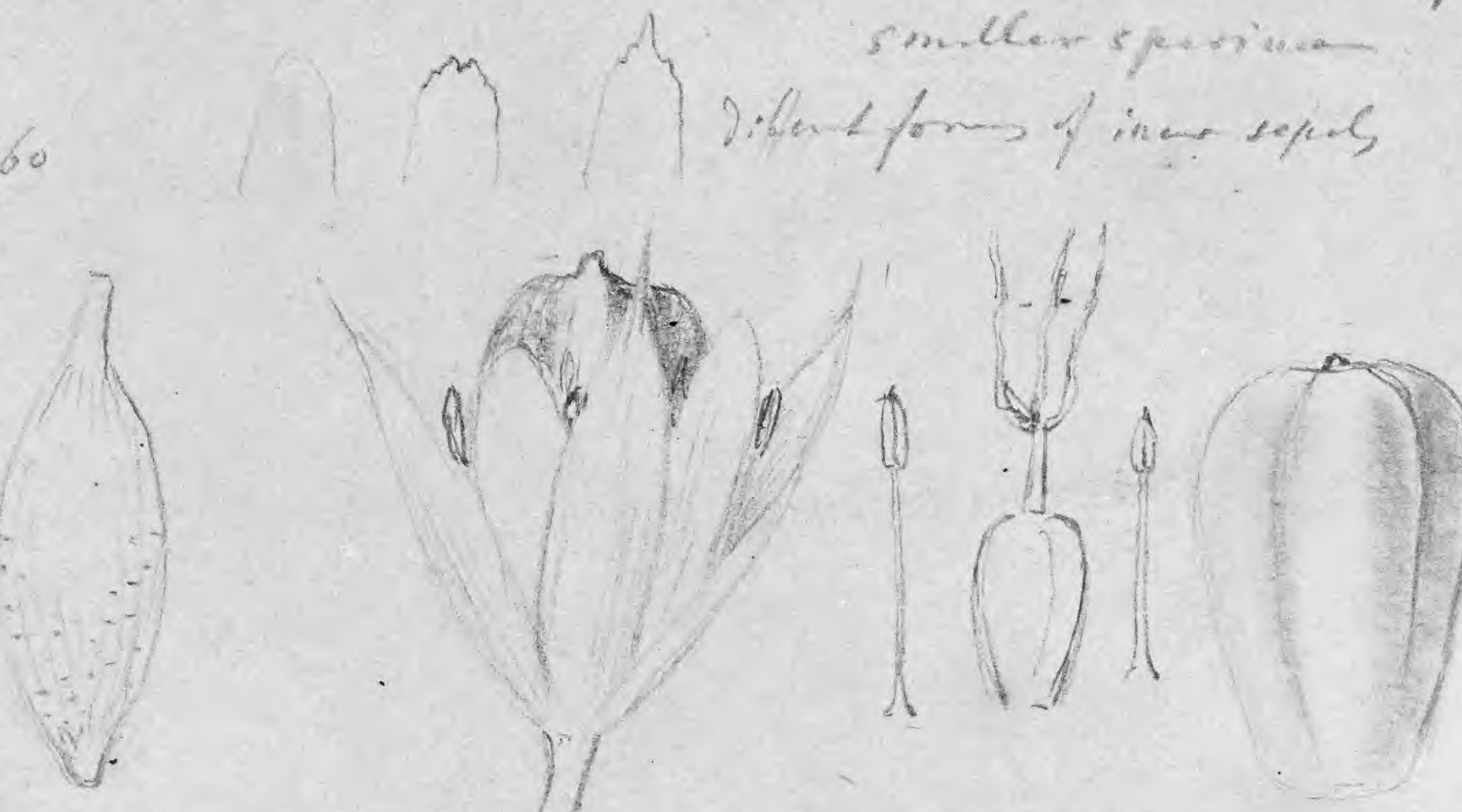
"*S. ensifolius*"

Oct 17 1865

Casuarina subsp. 49° lat., D. Lyall 1859

smaller specimen - H. Gray

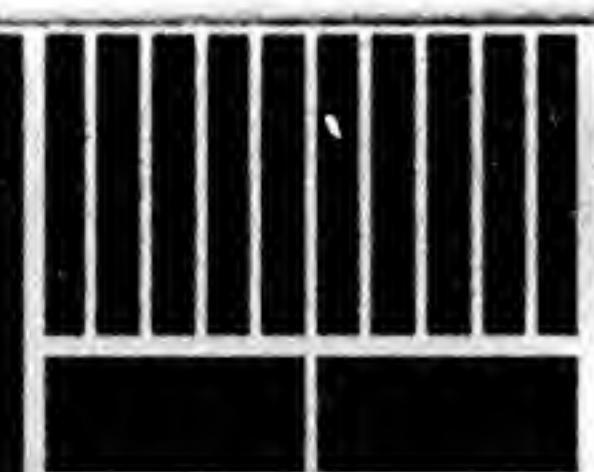
x60



seed wings
up and foiled

inner sepals shorter
obtuse or mucronate
often unequal

Capsule full of seed
placenta inserted
semicir. their whole
length



0 1 2 3 4 5 6 7 8 9 10

cm

copyright reserved



MISSOURI
BOTANICAL
GARDEN

9791

ALEX. LEITCH
APOTHECARY & PHARMACEUTIST,

Marble Building Cor. Fourth & Olive Sts. St. Louis, Mo.

MISSOURI BOTANICAL GARDEN
GEORGE EBEL



0 1 2 3 4 5 6 7 8 9 10

cm

copyright reserved



MISSOURI
BOTANICAL
GARDEN

~~X 10~~

Caymula divaricata Gray.

Sphex exstinctus Cressidae *constrictus*
ansterus Cressidae.

mittens, Gravina, Oahu.

1. *Leptodactylus* *alleni* *Dwyeri* *theater*

29th June 1906

thought to be *S. eupithecia* — common enough the
Newfoundland (Dent 1865) — seen standing

2. *Cratylus* *Smalli*



0 1 2 3 4 5 6 7 8 9 10

cm

copyright reserved



MISSOURI BOTANICAL GARDEN

9792

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN

South West corner Fifth and Market Streets
Groceries
Lettich & Co. Ltd.



copyright reserved

J. c. s. folius

Oct 17 1865

Cascade Mtns

$\times 10$

D. Syall

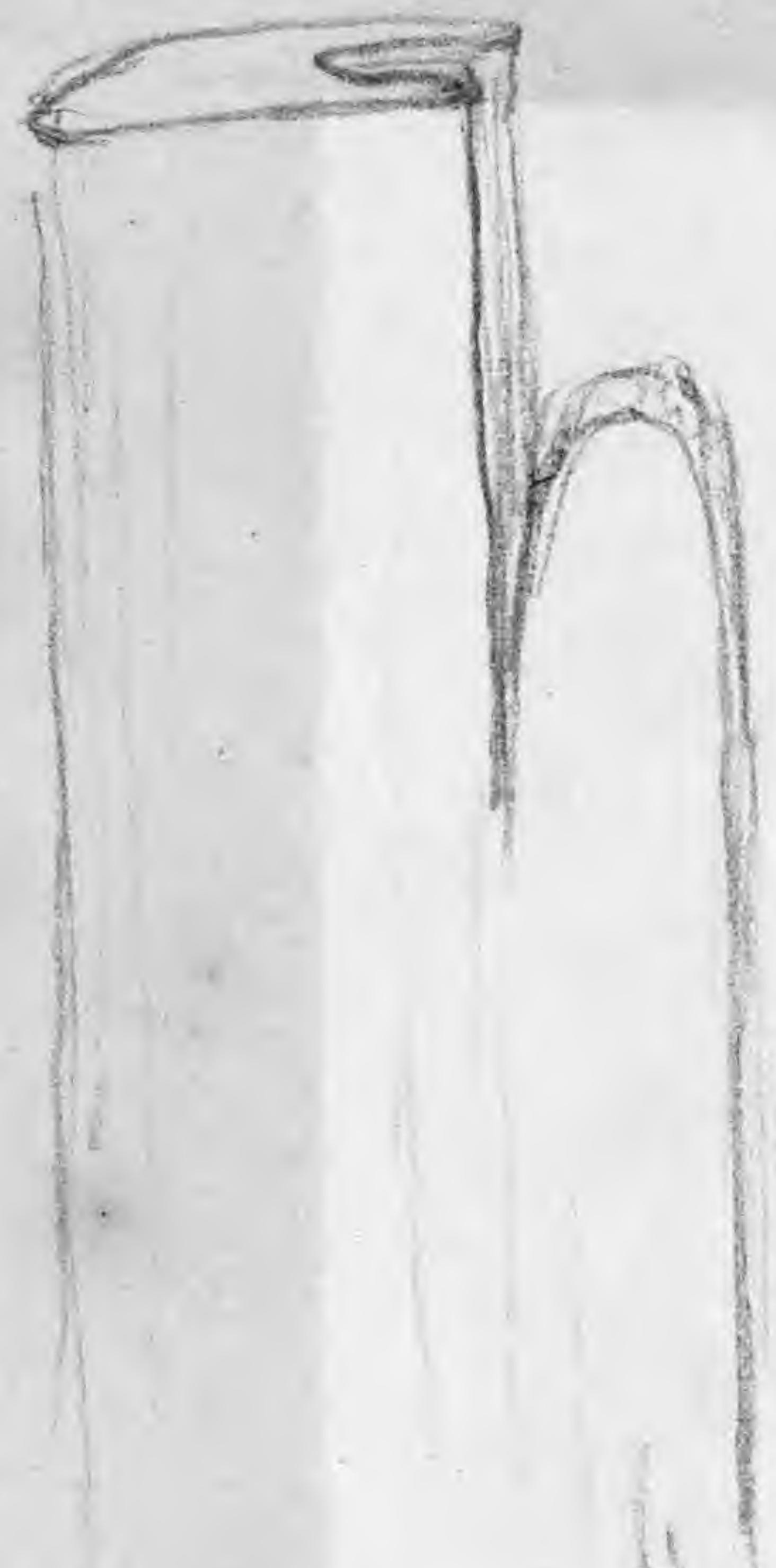
smaller spec - 2

$\times 10$

Ho. Gray



base of
leaf



sheath of leaf
+ stipules



stem



0 1 2 3 4 5 6 7 8 9 10

cm

copyright reserved



MISSOURI
BOTANICAL
GARDEN

9793

ALEX. LEITCH,
APOTHECARY & PHARMACEUTIST

Marble Building Cor. Fourth & Olive Sts. St. Louis, Mo.

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN



0 1 2 3 4 5 6 7 8 9 10

cm

copyright reserved



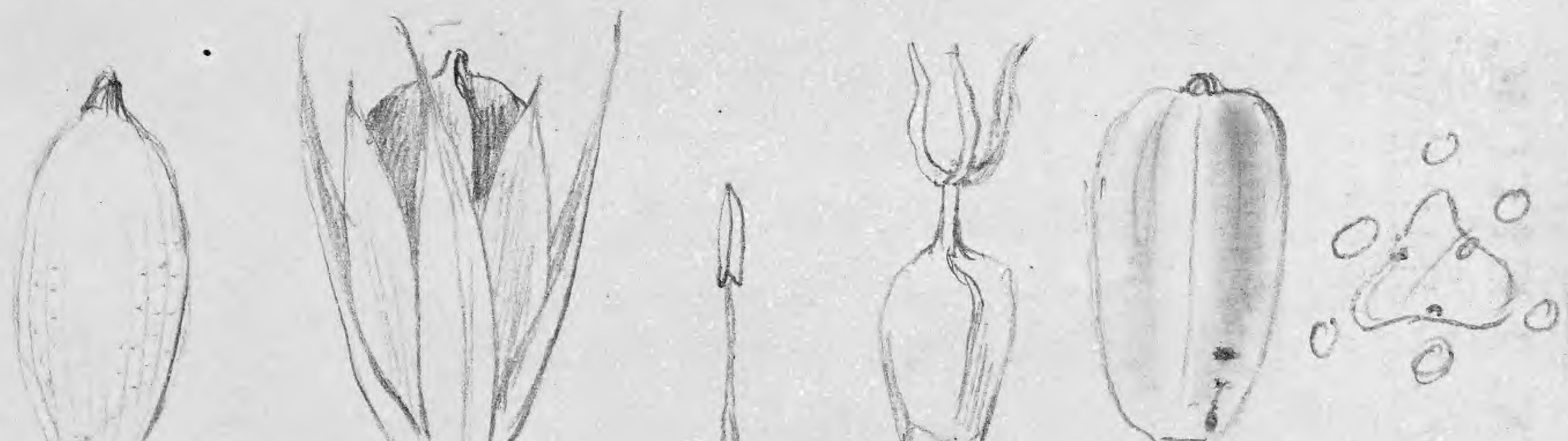
MISSOURI
BOTANICAL
GARDEN

I. ciliolatus Hook fl. & Bot. Am. II. 191
Highland Park, Mountains Oct 18 1865
— swamp, ground.

H. Gray

x 60

x 10



capsule stamens pistil
about 10 ribs, reticulation faint
ovules

longitudinal slight & very faint

x 10



part of stem
near base

Leaf x 10

stipulat.



0 1 2 3 4 5 6 7 8 9 10

cm

copyright reserved



MISSOURI
BOTANICAL
GARDEN

9794

((ALEX. LEITCH))
APOTHECARY & PHARMACEUTIST,
Marble Building Cor. Fourth & Olive Sts. St. Louis, Mo.

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS



0 1 2 3 4 5 6 7 8 9 10

cm

copyright reserved



MISSOURI
BOTANICAL
GARDEN

x 60

Amomum ensifolium

Oct 29 1865

Rocky Mountains to Fort Colville

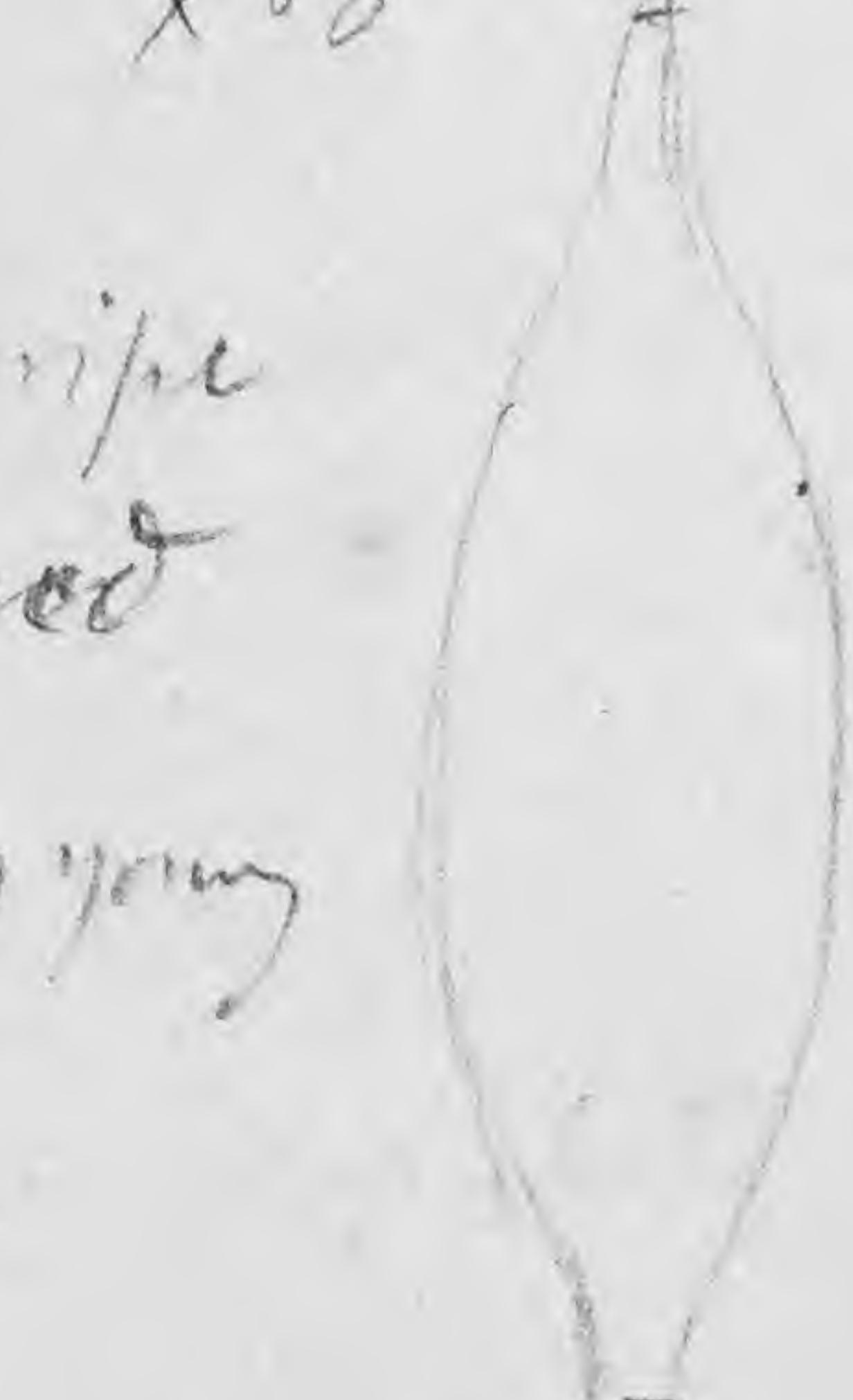
Dr. Lyall 1861

W. H. Gray

ripe

seed

very young



ripe

capsule

seeds equal or
inner ones a little
shorter and more obscurely
outer ones prominent
ripe capsule pyriform
shorter

leaves with
stipules



0

1

2

3

4

5

6

7

8

9

10

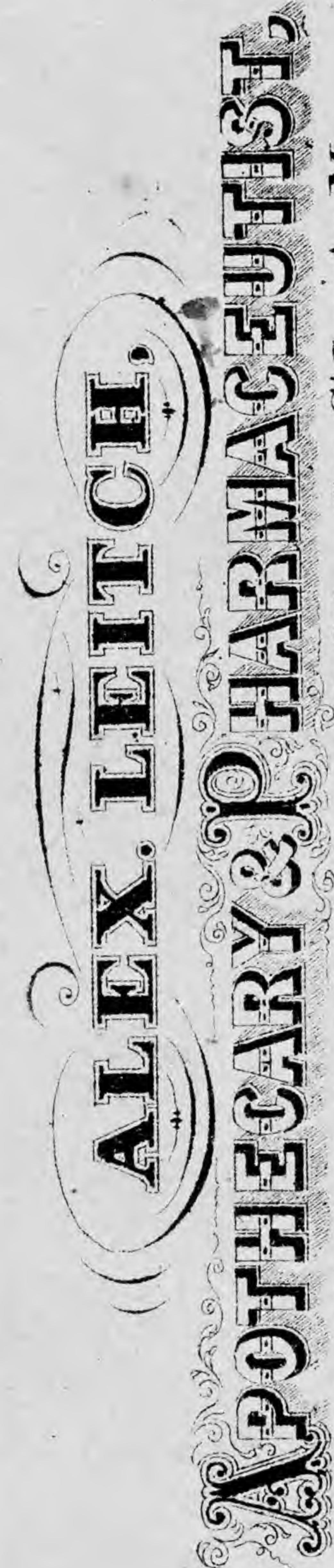
cm

copyright reserved



MISSOURI
BOTANICAL
GARDEN

9795



MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS



0 1 2 3 4 5 6 7 8 9 10

cm

copyright reserved



MISSOURI
BOTANICAL
GARDEN

June 8

Oct 21 1865

sub *I. easifolius*

Rocky Mts, Boreas

1858

in H.B. Gray

6-7 heads

heads 10-15 ft

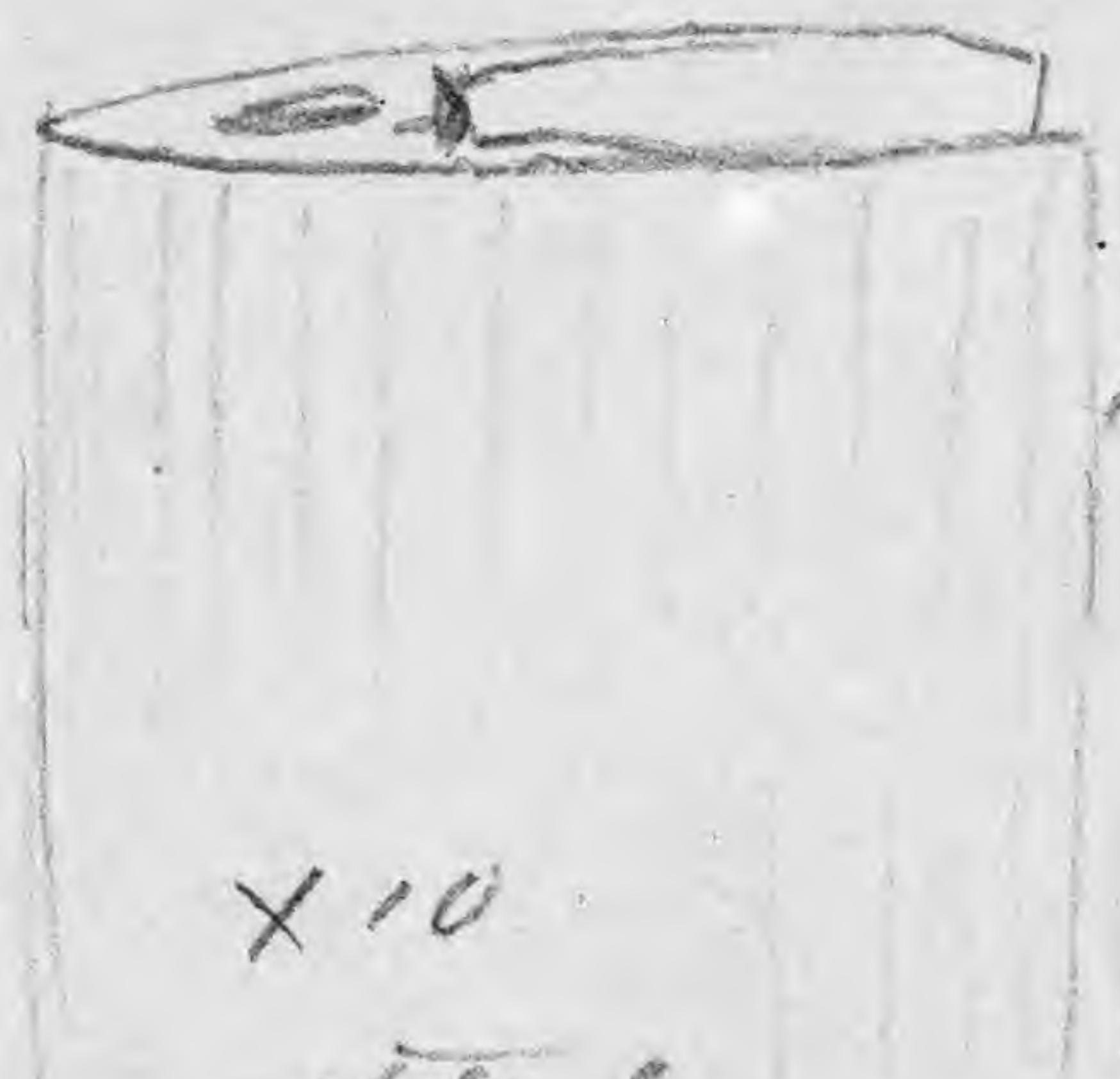
stem 2 $\frac{1}{2}$ feet
2 ft

ovar obovat



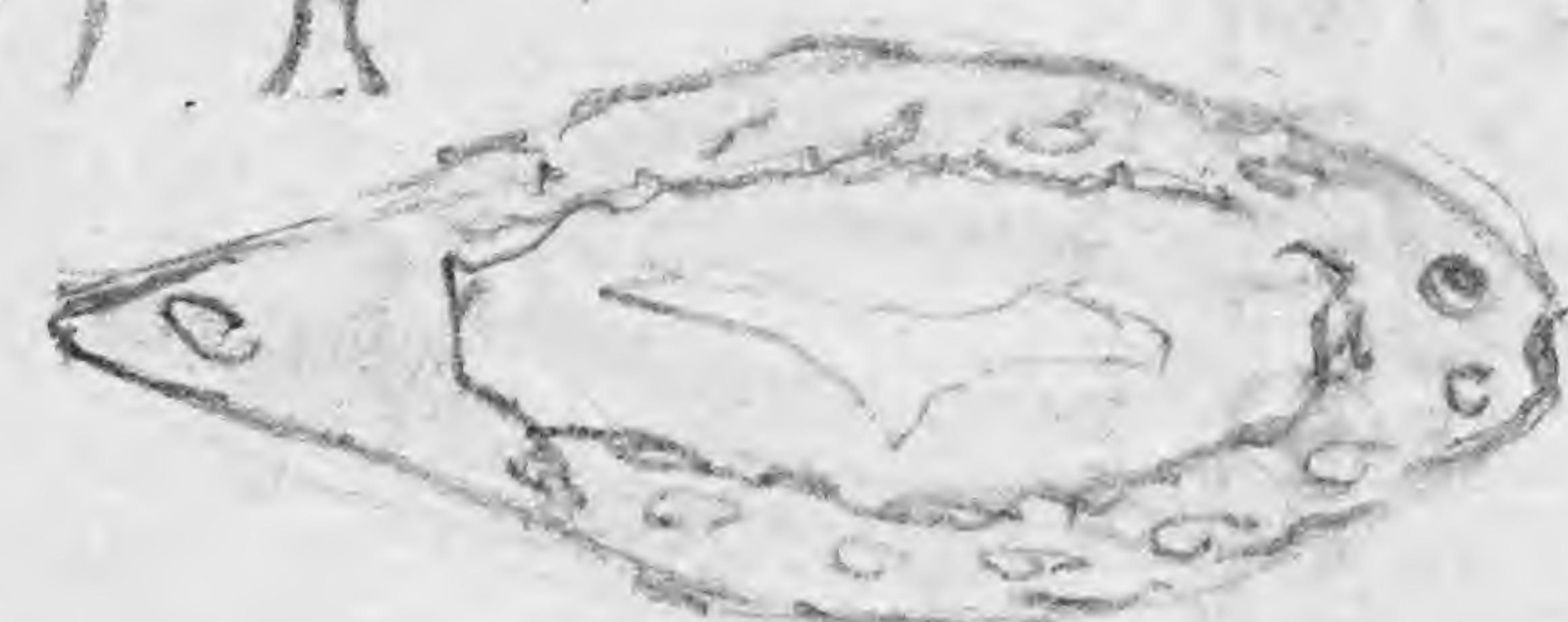
over 2 $\frac{1}{2}$ feet high
heads in a stiffly
compacted panicle
stem & leaves flat,
easiform.

$\times 10$

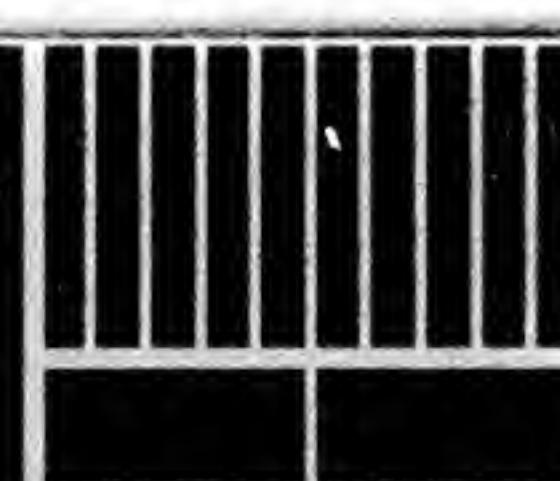


$\times 10$

stiples small



seed of stem $\times 10$



0 1 2 3 4 5 6 7 8 9 10

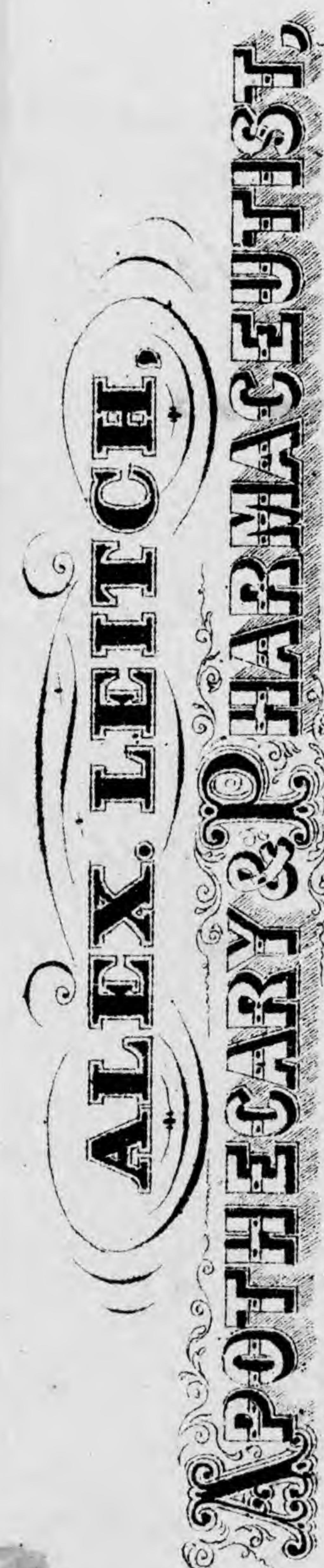
cm

copyright reserved



MISSOURI
BOTANICAL
GARDEN

9796



Marble Building Cor. Fourth & Olive Sts. St. Louis, Mo.

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS



0 1 2 3 4 5 6 7 8 9 10

cm

copyright reserved



MISSOURI
BOTANICAL
GARDEN

Apr 7 1866



top of stem



lower part of stem
with base of leaf

Palliser's Port. N. Am.
Expl. Expl.
"Juniperus squifolius"
Rocky Mountains
Coll E. Boergesen
1858



0 1 2 3 4 5 6 7 8 9 10

cm

copyright reserved



MISSOURI
BOTANICAL
GARDEN

9797

APPOTHECARY AND CHEMIST,
ALEX. LEITCH,
Marble Building, Cor. Fourth and Olive Streets,
ST. LOUIS, MO.

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS



0
cm

1 2 3 4 5 6 7 8 9 10

copyright reserved



MISSOURI
BOTANICAL
GARDEN

Dear friends

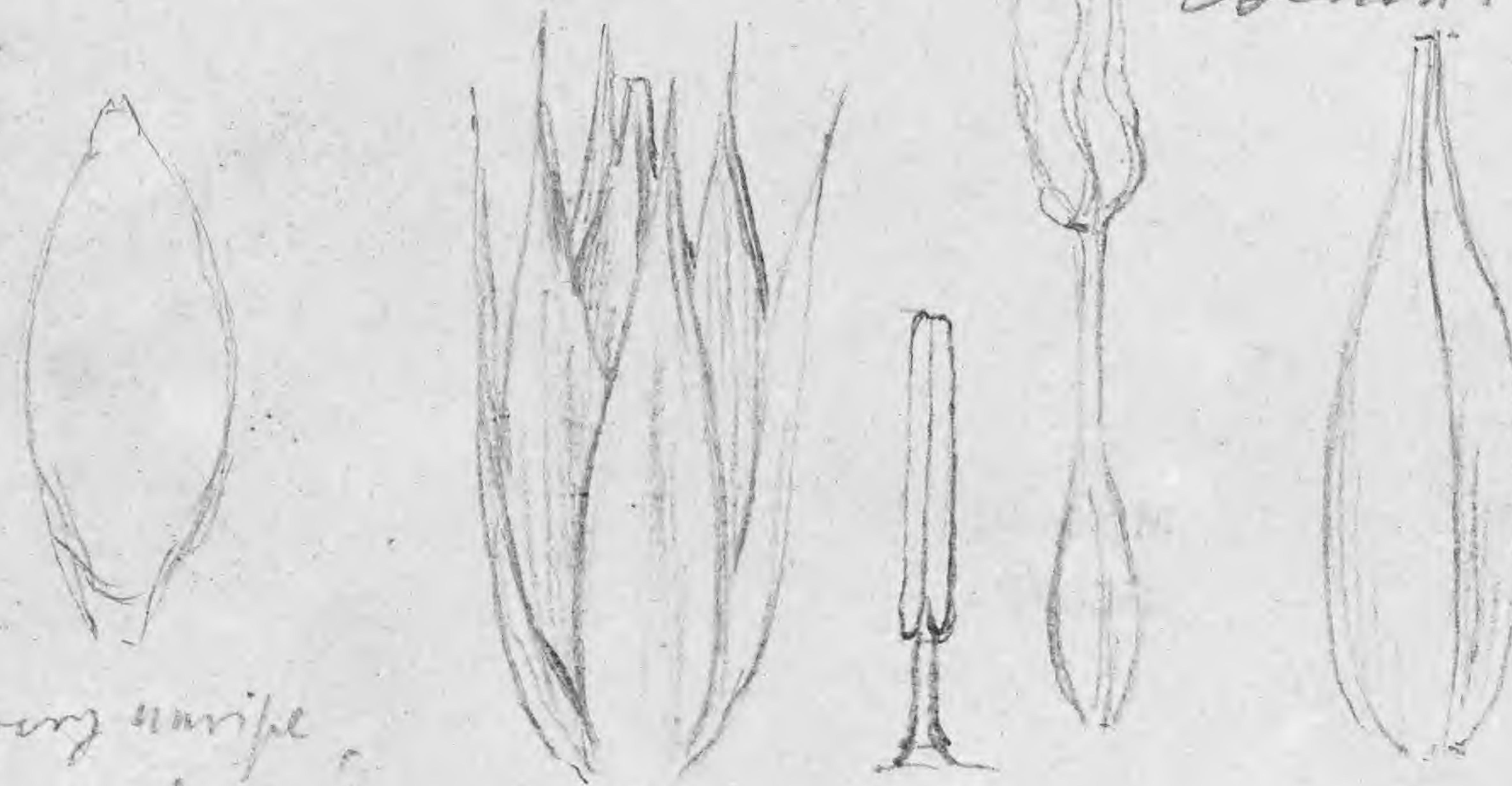
October 25. 1865 -

W. 2017. Sonoma Valley, Harbor (the gray)
former marsh beyond. Composite, stiff
cavitate flower (2-10 ft)

x 60

Gaudich. flor. ex. *Yerba volvi* *Agave*
South. of Hesperia, Cal.

hosta
hosta



very simple
sober

all aspects of accessibility - mobility

Ulmus
Corylacea



0 1 2 3 4 5 6 7 8 9 10

cm



MISSOURI
BOTANICAL
GARDEN

copyright reserved

9798

ALEX. LEITCH,
APOTHECARY & PHARMACEUTIST,
Marble Building Cor. Fourth & Olive Sts. St. Louis, Mo.

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS



0 1 2 3 4 5 6 7 8 9 10

cm

copyright reserved



MISSOURI
BOTANICAL
GARDEN

2340 Janus

Jan 6 1866

Bolander No 4 sub nomine

April 6 1866

J. acuminatus
panicle decomposita
& spreading.
capitell 6-8 flor.
pallid
Vagin. acute

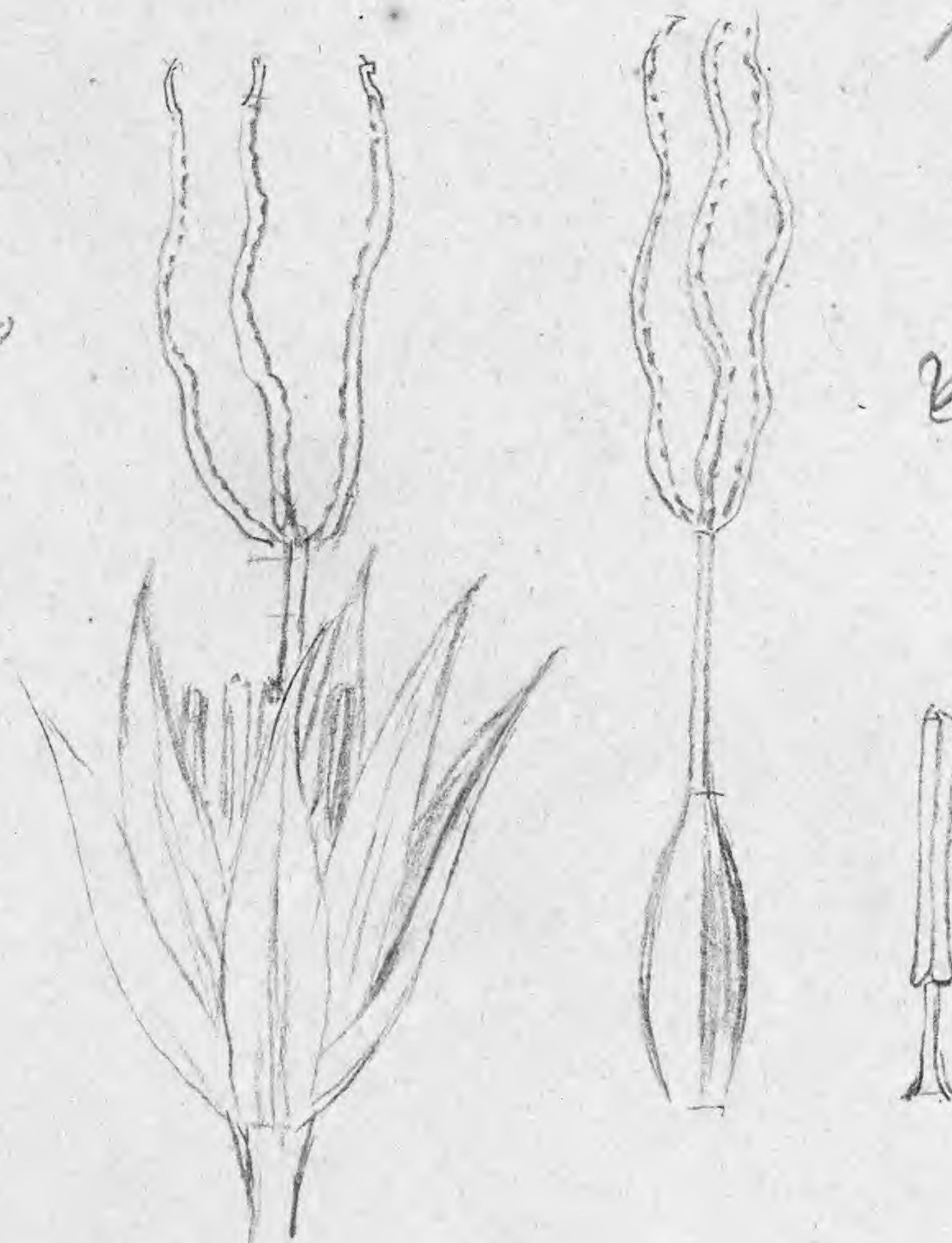


cut of stem x10



cut of leaf
x10

x10



0 1 2 3 4 5 6 7 8 9 10

cm

copyright reserved



MISSOURI
BOTANICAL
GARDEN

9799



MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS

George Engelmann



0 1 2 3 4 5 6 7 8 9 10

cm

copyright reserved



MISSOURI
BOTANICAL
GARDEN

Immos

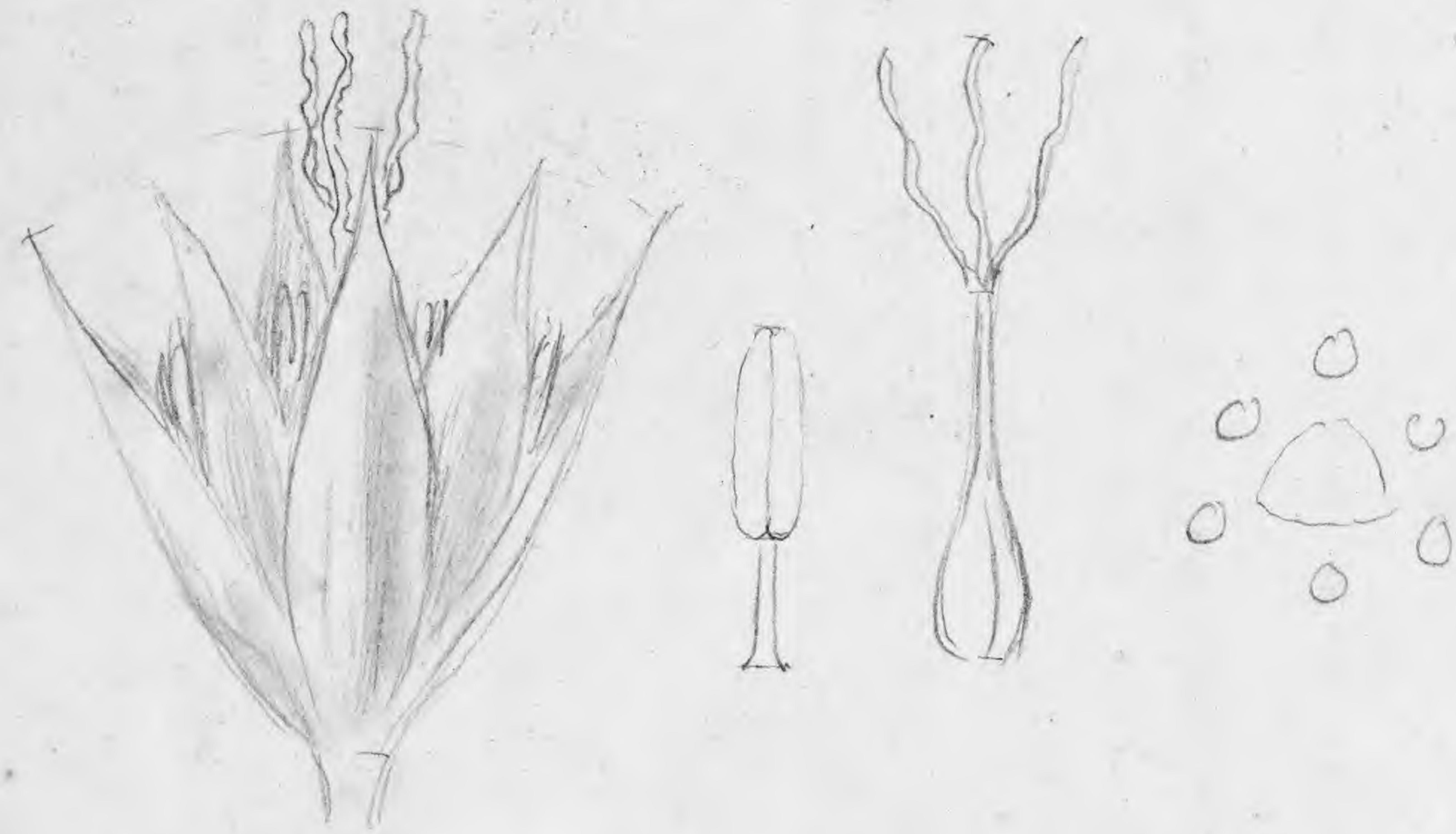
H. Bolander

Yosemite Valley

Aug 28 1866

Bolander Aug 1866

heads 6-8 flow.



sepals acutissime
angustilonga
flos breviter pedicellatus



0 1 2 3 4 5 6 7 8 9 10

cm

copyright reserved



MISSOURI
BOTANICAL
GARDEN

Alex. Leitch,

APOTHECARY & CHEMIST,

Cor. 4th & Olive Sts., St. Louis.

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS

9800



0

1

2

3

4

5

6

7

8

9

10

cm

copyright reserved



MISSOURI
BOTANICAL
GARDEN

coarse rugæ or pittings, which, however, may be due to weathering.

Dimensions.—Length, 0.20 of an inch; width, 0.18.

The *Elaeocrinus Kirkwoodensis* is nearly allied to *E. (Pentremites) melo*, from which it is distinguished by its much smaller size and less deeply excavated base. It also occupies a higher geological position.

Occurs in the St. Louis Limestone (Carboniferous) on the Pacific railroad near Kirkwood, St. Louis county, Missouri.

8

17

E. oxymeris A. P.

762-6



0 1 2 3 4 5 6 7 8 9 10
cm

copyright reserved



MISSOURI
BOTANICAL
GARDEN

as' range of mountains, on Capt. Simpson's return trail. Circumstances prevented me from obtaining more than a few crystals, which are now deposited in the collection of the Smithsonian Institute; a few others are also in the hands of members of the party. We were travelling at the time by forced night marches with nearly worn out animals, seeking to gain a spring of water in a distant range of mountains. This desert was then entirely unexplored. I have but little doubt that more interesting materials are to be found at the same point.

The mountains of the former Territory of Utah promise a rich yield to the mineralogist. We know already of gold and silver ores in the east, west and south part of that district; of copper and lead ores in the south, and I have discovered the latter also in the centre of it; of specular iron ores and native sulphur in the Rocky Mountains and near Little Salt Lake; of rock salt in the mountains south-east of Utah Lake; of native alum near Salt Lake; of various other salts in the deserts; and of silicates, composing the granites, porphyries, diorites, trachytes, and lavas, nearly over the whole area.



0
cm

1

2

3

4

5

6

7

8

9

10

copyright reserved



MISSOURI
BOTANICAL
GARDEN

6031

L. ovatus

July 27 1867

Hb. nom. 95

Boigtree, in tufts on meadows
July 1866glaucous mostly 7-9
flown.

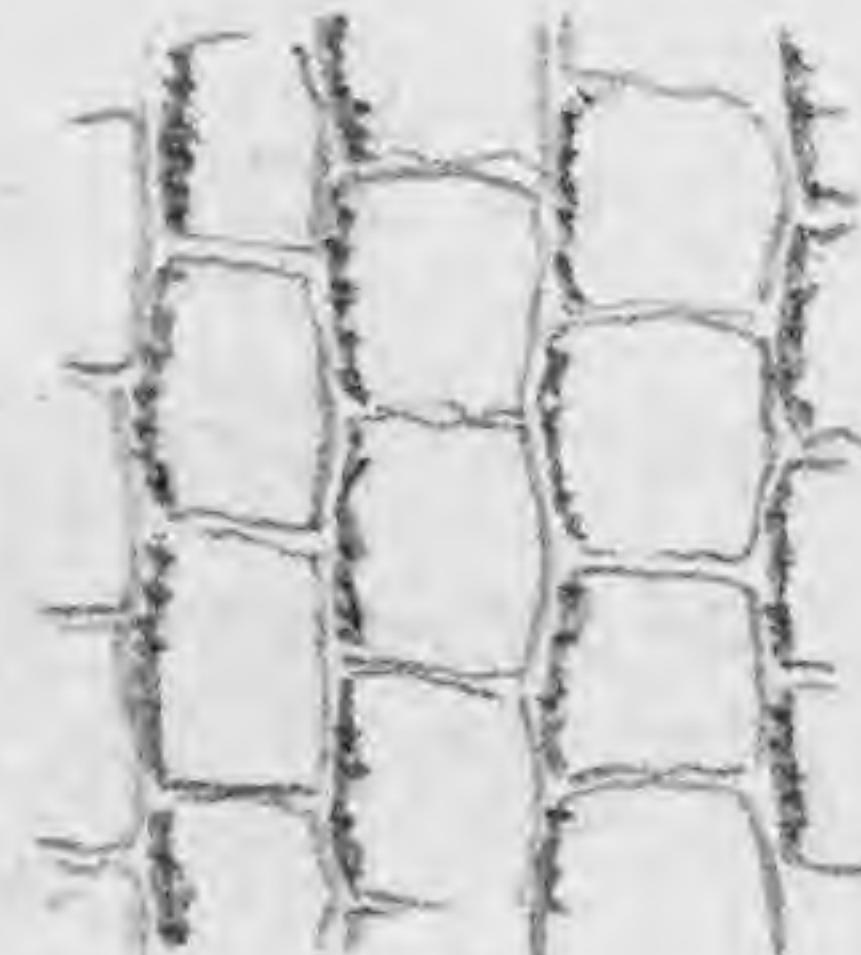
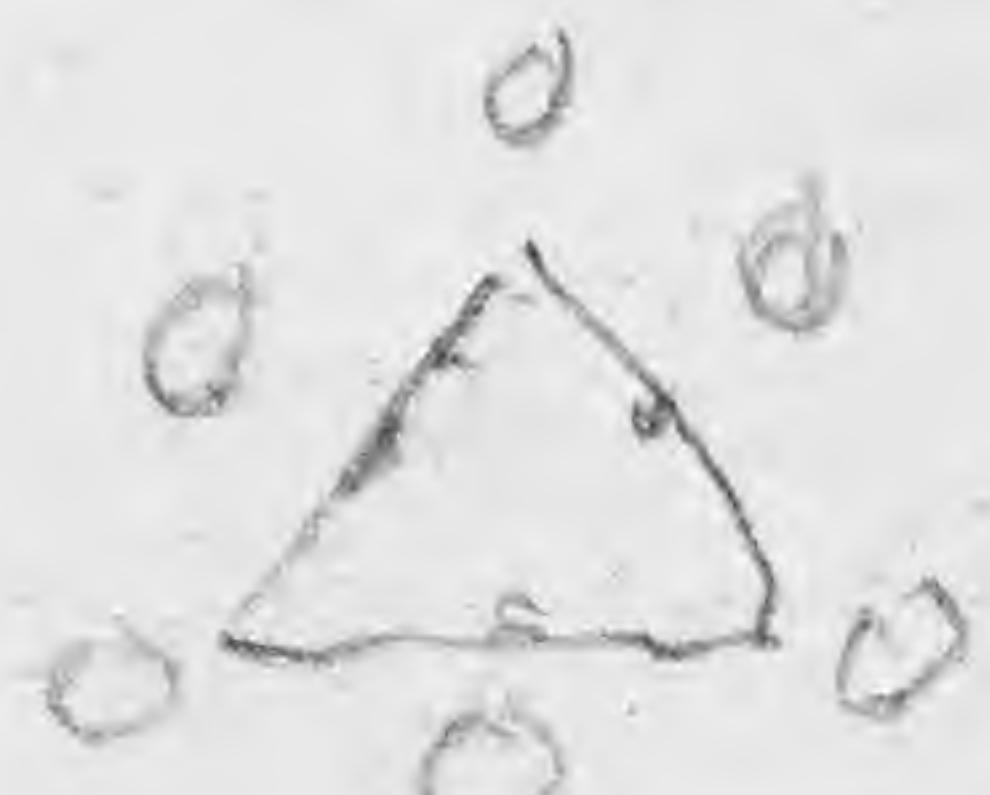
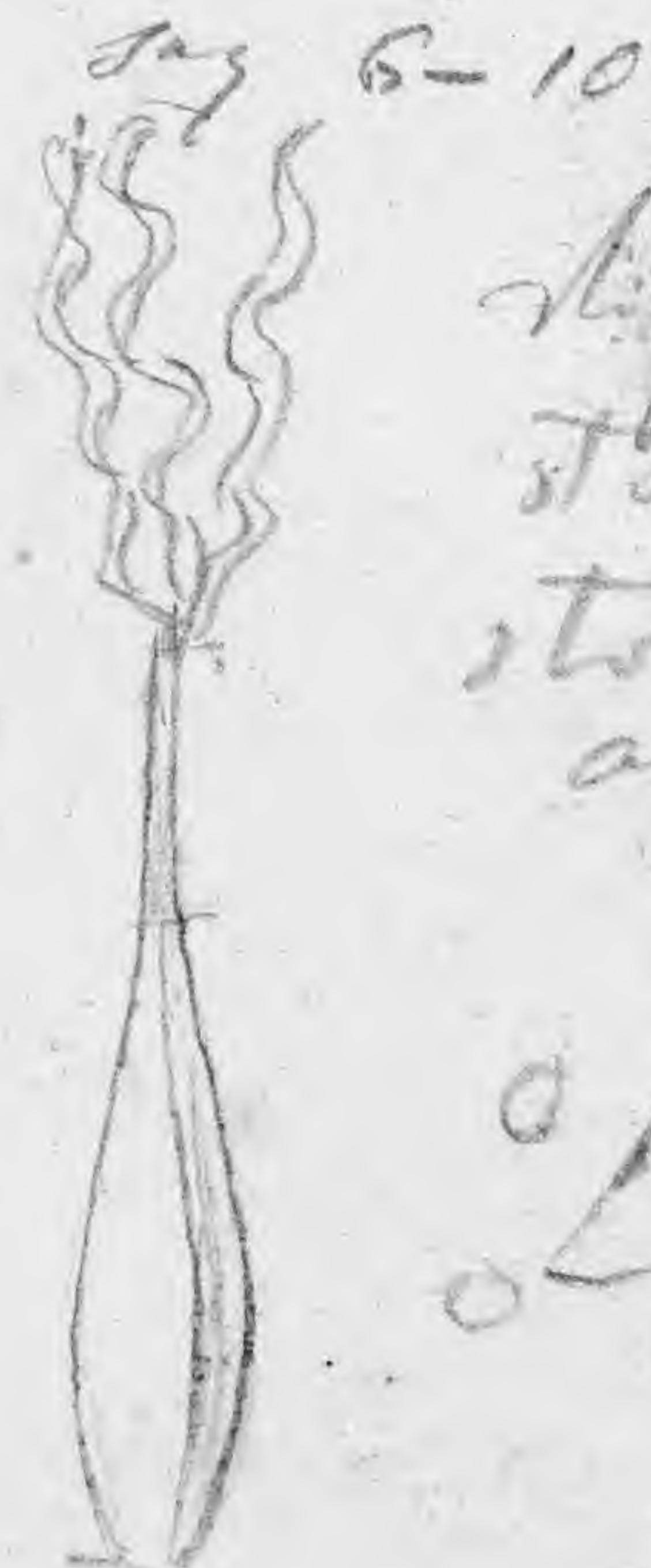
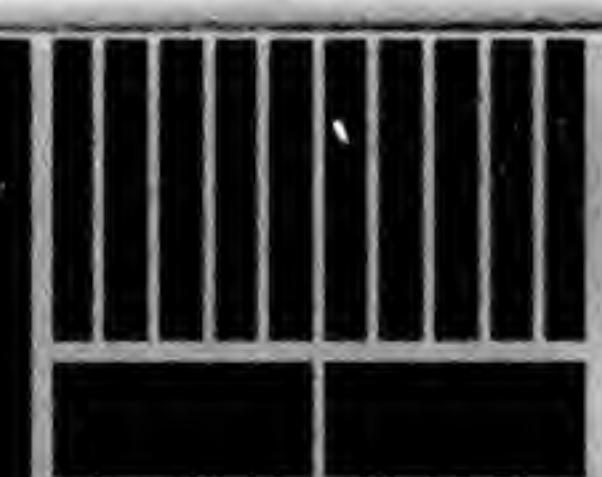
x10

x60



7-9 ribs

x150

areole nearly
smoothstaminal anthers
anisostylous, extreme
sæpiæ palea breviora
pl. brown's pedicellat.slight
stolif.
stolæ
anode

0 1 2 3 4 5 6 7 8 9 10

cm

copyright reserved

MISSOURI
BOTANICAL
GARDEN

9802

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS

ALEX. LETTICE
APOTHECARY & PHARMACEUTIST
Marble Building Cor. Fourth & Olive Sts. St. Louis, Mo.



0 1 2 3 4 5 6 7 8 9 10

cm

copyright reserved



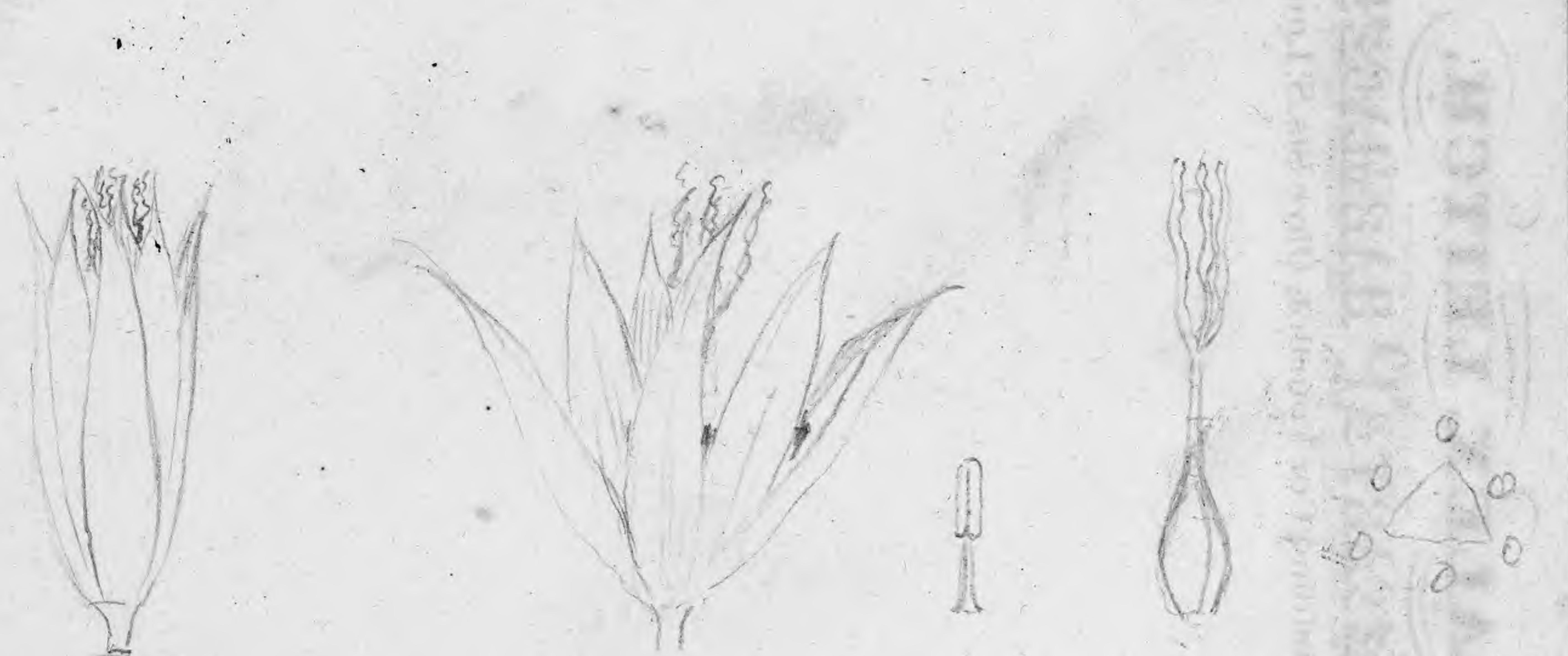
MISSOURI
BOTANICAL
GARDEN

J. oxymin

"dry toes"

July 28 1867

Boulder Jan 1866



0 1 2 3 4 5 6 7 8 9 10

cm

copyright reserved

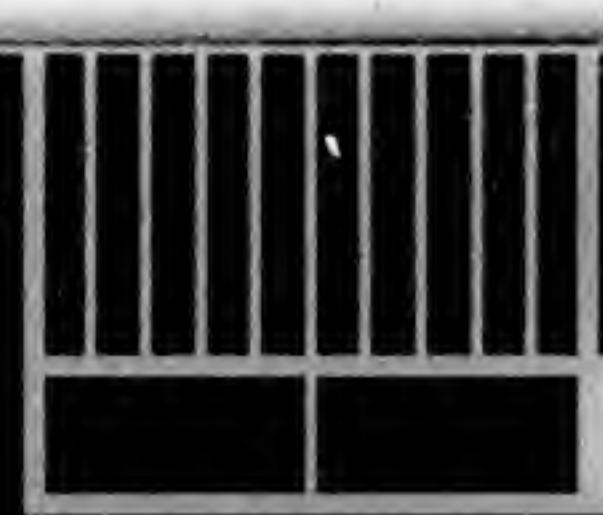


MISSOURI
BOTANICAL
GARDEN

ALEX. LETTICE,
APOTHECARY & PHARMACEUTIST,
Marble Building Cor. Fourth & Olive Sts. St. Louis, Mo.

MISSOURI BOTANICAL GARDEN
EDWARD F. HENNING PAPERS

9803



0 1 2 3 4 5 6 7 8 9 10

cm

copyright reserved



MISSOURI
BOTANICAL
GARDEN

~~*Juncus falcatus* Meger
syn *J. Martensianus* Bory. Kunth 3361
w. - both am
good species~~
~~for P. Meyer in Leiden~~
~~Flr Ross. 4. 228~~
~~" Distinctissim. ab *J. cuspidata* Thun
al Hooker conjugat. " 9. E~~



0 1 2 3 4 5 6 7 8 9 10

cm

copyright reserved



MISSOURI
BOTANICAL
GARDEN

9804

MISSOURI BOTANICAL GARDEN
George Champion



0 1 2 3 4 5 6 7 8 9 10

cm

copyright reserved



MISSOURI
BOTANICAL
GARDEN

Zinnia x pharbitis 3
By Horn Mints, Hayden Aug. 1859

Aug 24 1865



unripe
seed



extern. segs
macroscap - visible
, inferior ones acuteish,
a little shorter



0 1 2 3 4 5 6 7 8 9 10

cm

copyright reserved



MISSOURI
BOTANICAL
GARDEN

9805

ALEX. LEITCH,
APOTHECARY & PHARMACEUTIST,
Marble Building Cor. Fourth & Olive Sts. St. Louis, Mo.

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS



0 1 2 3 4 5 6 7 8 9 10

cm

copyright reserved

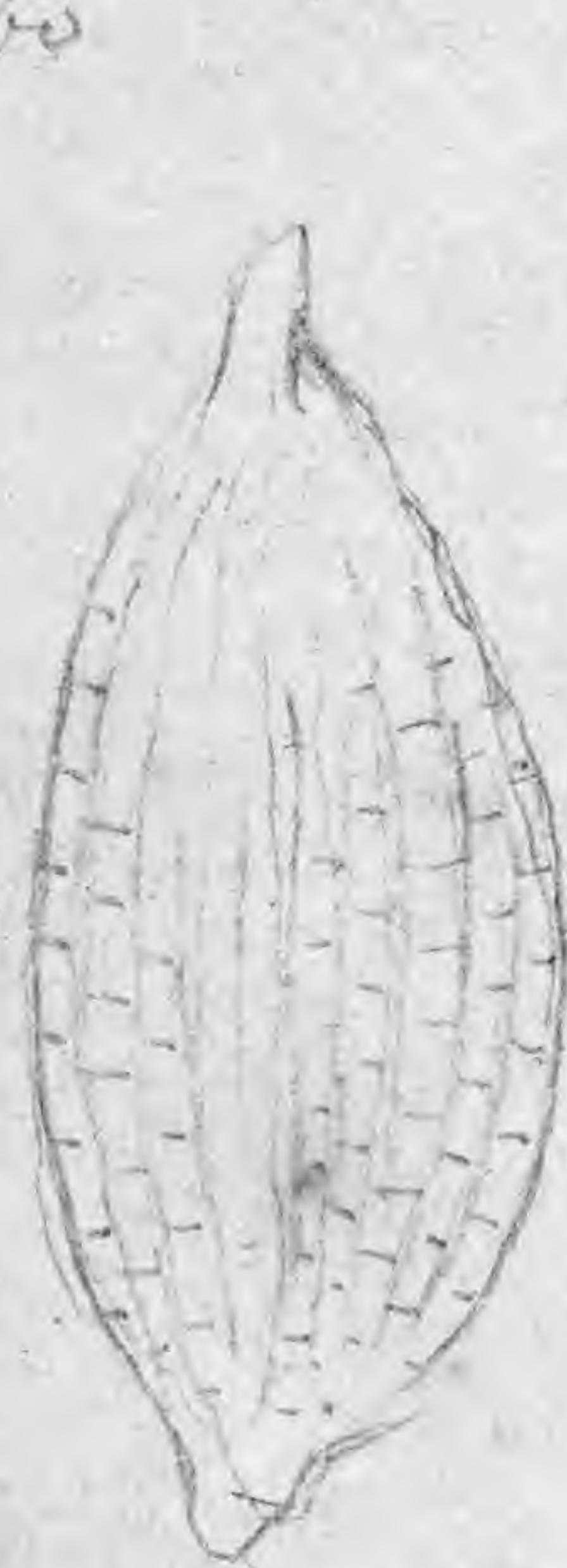


MISSOURI
BOTANICAL
GARDEN

Immer, Herbarium Bons! Sept 23 1865
ex herb. And Petrop. Sticta, mosses leg.

46. 46. 112. 51

× 60



× 10



infalcatum, to which
Meyer refers this, se pala pala iacquelinii
the capsule is cylindric, magnum lith
a little longer than broad or i omni austro
a minute atropurpura
Convolvulus (magnim ariagast
pallidior)

Sal of soaked
leaf × 10

divided into

2 very unequal compas
ments

a better section
only one cavity, but twice
constricted. see April 7

always 6

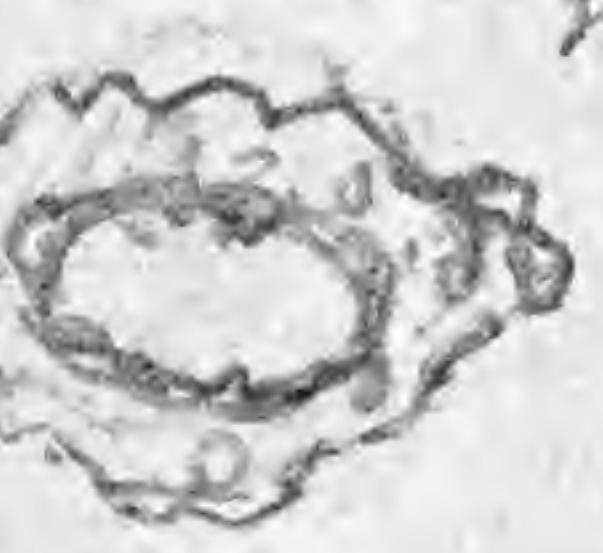
stems



leaf
× 10



leaf
no dose



× 10

fructifer
cylind



skirt



0 1 2 3 4 5 6 7 8 9 10

cm

copyright reserved



MISSOURI
BOTANICAL
GARDEN

9806



ALEX. LEITCH,
APOTHECARY & PHARMACEUTIST,
Marble Building Cor. Fourth & Olive Sts. St. Louis, Mo.

GEORGE ENGELMANN PAPERS



0 1 2 3 4 5 6 7 8 9 10

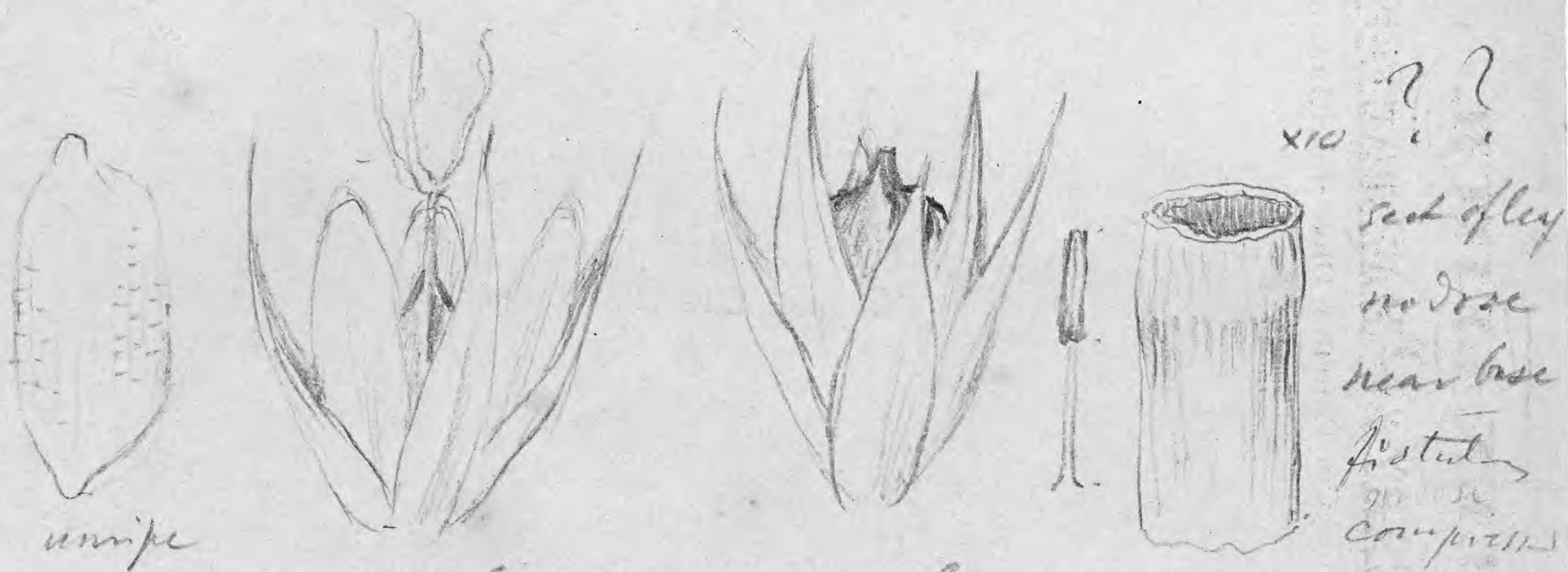
cm

copyright reserved



MISSOURI
BOTANICAL
GARDEN

J. Mertensiana Dasy! Oct 17 1865
Setha, Bongard in Hb Gray



sepals very unequal
sometimes outer segments acute
and inner shorter, obtuse
or outermost & innermost shorted
outermost a little curved
some flowers with only 4 or 5 parts!



0 1 2 3 4 5 6 7 8 9 10

cm

copyright reserved



MISSOURI
BOTANICAL
GARDEN

9807

ALEX. LEITCH,
APOTHECARY & PHARMACEUTIST,

Marble Building Cor. Fourth & Olive Sts. St. Louis, Mo.

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS



0 1 2 3 4 5 6 7 8 9 10

cm

copyright reserved



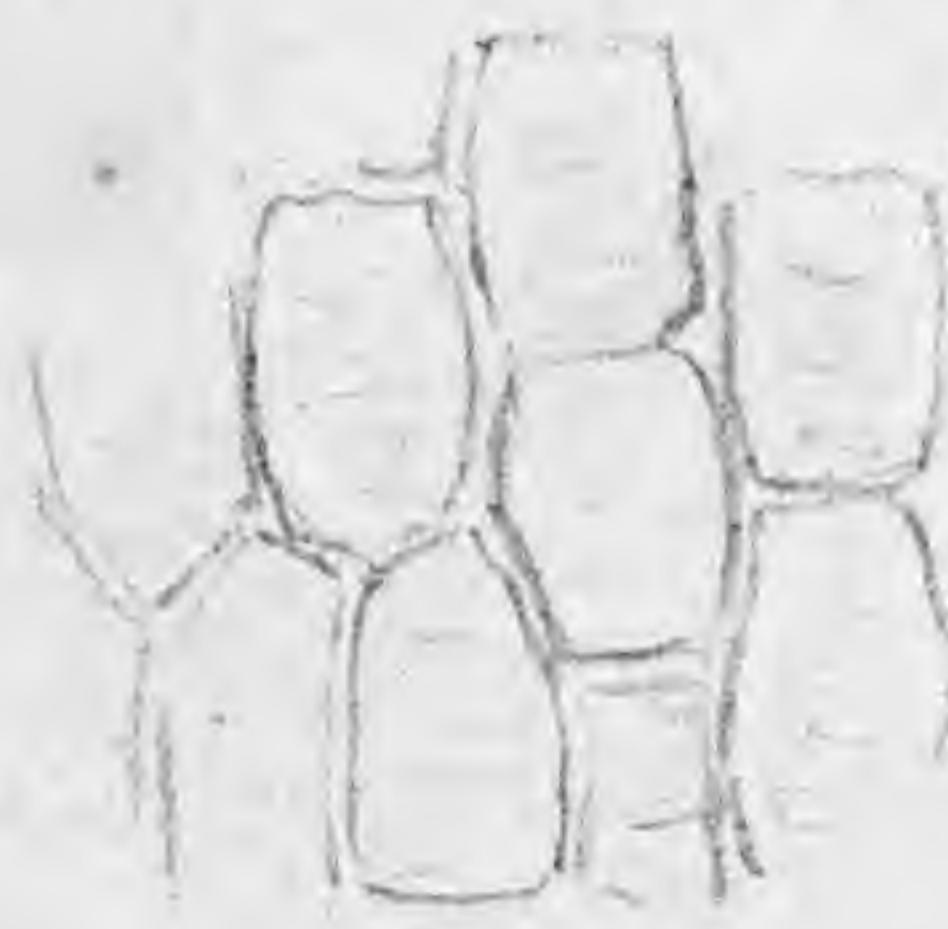
MISSOURI
BOTANICAL
GARDEN

J. Mertensianum

March 29 1866

Mertens in H.C. Missouri 4463.

stem & leaves April 7 1866



cut distinctly striated
but cross striations undivisible or
very faint — seeds at quite ripe



$\times 10$



part of compressed
fistulous, strongly
striated stem.

obliquely
twisted & channelled
laterally compressed



- -



part of
leaf



0 1 2 3 4 5 6 7 8 9 10

cm

copyright reserved



MISSOURI
BOTANICAL
GARDEN

9808



GEORGE ENGELMANN PAPERS



0 1 2 3 4 5 6 7 8 9 10

cm

copyright reserved



MISSOURI
BOTANICAL
GARDEN

J. Metteassianae Bong. Mem. Soc. Petersb. II. 167.

1833

Bong. de Veld. In Litcha p. 167 extenuata in II. 361

Rhizomata repente

Culm. solitaria recti-compressa (?) foliis teretibus?
(planis Bong.) foliis rotundis septis transversis
veluti revolutis

repente culmata auctata exsertiles paniculatis
(Grevillea Bong)

Capsulae ovoeae oblongae triangulare obovatae
succinatae variculatae paniculatis

Staminis 4-5 (3 Bong.) sepals 3-4
Grevillea

Style longior

Plantae caespitosa (Bong.) 7-9 pallidior
Anthemis leucodes f. clementi diplo Grevillea

E. Meyer in Ledeb. H. Ross IV. 228 non Metteassianae
with foliis rotundis!



0 1 2 3 4 5 6 7 8 9 10

cm

copyright reserved



MISSOURI
BOTANICAL
GARDEN

9809



APOTHECARY & PHARMACEUTIST,

COR. 4TH & OLIVE STS., ST. LOUIS.

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS



0 1 2 3 4 5 6 7 8 9 10

cm

copyright reserved



MISSOURI
BOTANICAL
GARDEN